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DP-301891

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: John Anthony Lotspih  
Serial Number: 09/805,586  
Filed: 03/13/2001  
For: Tunable Control Side Air Bag Cushion  
  
Group Art Unit: 3636  
Examiner: Edell, Joseph F.

**REPLY BRIEF**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Examiner's Answer mailed February 24, 2005 Appellant hereby submits a permissive reply pursuant to 37 CFR § 1.193.

**Rejection Under 35 U.S.C. 112 First Paragraph:**

The claim limitation at issue recites that "...the expansion restraining elements are adapted to remain operative so as to provide expansion restraint upon full inflation of the air bag cushion without failing such that the expansion restraining elements restrict expansion of the air bag cushion..." The Examiner's Answer states that one skilled in the art would not have recognized that the inventor was in possession of this claim feature because the specification does not expressly state or imply criteria for determining a successful and/or failing expansion

restraining element. The Examiner's Answer states that one would not know the appropriate type of woven fabric to use in constructing seams to create expansion restraint elements that remain operative without failing. The Examiner's Answer also states that one would not know the necessary density of the seam to create expansion restraint elements that remain operative without failing. The Examiner's Answer further states that one skilled in the art would not know the maximum allowable inflation pressure that would be necessary to allow expansion restraint elements to remain operative without failing upon full inflation.

As stated at MPEP §2163 III A, a general allegation of unpredictability is not sufficient to support a rejection for lack of adequate written description. The test for sufficient written description is to convey with reasonable clarity to those of skill in the art that the inventor was in possession of the invention. See, MPEP §2163.02.

Through reference to FIGS 3 and 5, the present application clearly illustrates an inflated air bag with the expansion restraining elements restraining expansion of the air bag. This operative condition is described at page 8 lines 9-17 wherein it is stated that the restraining elements 62, 64 are preferably formed through introduction of connective seams between layers of material forming the cushion such that flow of inflation gas is directed around the expansion restraining elements 62, 64 thereby substantially precluding expansion at the locations of their occurrence. Thus, the application teaches a method of forming the restraint elements as well as clearly defining their operative condition. Specifically they divert gas flow while limiting expansion. Thus, Appellant respectfully submits that the figures and corresponding written description clearly convey possession of the claimed subject matter at the time the invention was filed.

As regards the Examiner's position that the specification does not expressly state or imply criteria for determining a successful and/or failing expansion restraining element. Appellant notes that the operative condition of diverting gas flow while limiting expansion is, in fact, specifically illustrated and described. This corresponds to the claim language at issue that

specifically recites that the operative condition is such that the expansion restraining elements continue to restrict expansion of the air bag cushion.

In light of the fact that the application clearly describes the formation and operation of the expansion restraining elements, the Examiner's position boils down to an assertion that one skilled in the art would not recognize how to select an appropriate fabric and form a seam that remains operative in that fabric under typical inflation pressures. However, it is well established that features that are conventional or well known to one of ordinary skill in the art need not be disclosed in detail. In the present case the Examiner provides no evidence that selecting and implementing the subject design features are beyond the level of ordinary skill in the art. To the contrary, since virtually every air bag formed contains seam structures that are designed to remain operative under inflation pressures, it is respectfully submitted that selection of suitable fabric and seams would be well within the level of ordinary skill in the art.

Finally, it is respectfully noted that features such as fabric construction and seam type are routinely characterized by the patent office as mere design choices that would be well within the level of ordinary skill in the art and thus lend no independent patentable weight to claims. Thus, the Examiner's position in the present case appears to be is at odds with a basic presumption routinely used by the patent office itself.

### **Obviousness**

With regard to the Examiner's arguments regarding the rejection of claims under 35 U.S.C. 103(a) as being obvious over U.S. Patent 6,065,772 to Yamamoto et al. in view of U.S. Patent 6,129,377 to Okumura et al., Appellant respectfully submits that the positions advocated are fundamentally at odds with the requirements as set forth in the MPEP for establishing a *prima facie* case of obviousness.

The Examiner takes the position that if the ability to form an expansion restraining element that remains operative is within the level of ordinary skill in the art (as argued by

Appellant), then using such an element to modify the cushion of Yamamoto et al. must also be obvious. Appellant respectfully submits that such a position confuses the ability to carry out an invention having certain features with the obviousness of doing so. In short, just because something can be done does not make it obvious unless there is some suggestion or motivation for doing so. This basic principle is clearly announced at MPEP §2143.01 which states that "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." Appellant has argued that forming a suitable expansion restraining element would be within the level of ordinary skill. This has nothing to do with the obviousness or nonobviousness of incorporating such structures in a claimed orientation within a particular air bag cushion.

As best understood, the position taken by the Examiner regarding the proposed modification of the primary reference to Yamamoto et al. to substitute the tear seam with an expansion restraining element that remains operative is also based entirely on the fact that such a modification could be made while ignoring the fact that such a modification would fundamentally change the principle of operation advocated by the primary reference. The rejection is based on a proposed modification of the embodiment in FIGS. 11(a) - 11(c) of Yamamoto et al. wherein the tear seam 57 is replaced by a permanent expansion restraining element as claimed.

The Examiner's answer states that replacing the tear seam with a seam that remains operative would not substantially alter deployment of the third chamber and would not change the fundamental operation of the cushion. However, the Examiner's position is contradicted by the indisputable fact that the presence of a permanent seam will prevent inflation at that location thereby forming an inflation dead zone.

The Examiner's answer notes that the intended purpose of the air bag cushion in Yamamoto is to protect the occupant in the event of a collision. Assuming that this is correct, Appellant respectfully submits that the intentional formation of an uninflated dead zone adjacent an occupant's head can hardly be considered an obvious suggested design modification. This is

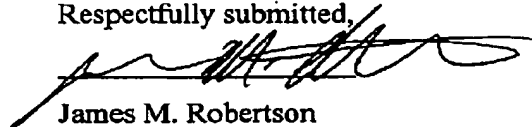
particularly true since Yamamoto itself teaches that the upper and lower chambers are to be combined. Thus, in order to make the proposed modification to the primary reference, one would have to sacrifice a degree of cushioning at the location between the two chambers which is located directly opposite the passenger's head while placing a potentially abrasive seam at the same location.

Appellant continues to respectfully submit that the principle of operation of the primary reference to Yamamoto et al. includes the development of a unitary cushioning chamber formed by the upper chamber 52 and the upper rear chamber 53 as well as controlled deployment of the upper rear chamber which is fully realized only upon the development of adequate pressure within the upper chamber 52. That is, the upper rear chamber 53 first is deployed in an upward direction to clear the seat belt and then after the seam is entirely torn, the upper rear chamber 53 can continue to expand rearwardly. Based on the teachings in the reference that rearward expansion occurs only after the seam is entirely torn, it appears that such operation would be fundamentally changed if the tear seam were replaced with a permanent seam as advocated. In the present case, the changes proposed by the Office Action would leave an uninflated zone at the location of the seam between the upper chamber and the upper rear chamber rather than the unitary inflated cushion taught by the reference. As best understood, due to the arrangement of the chambers in the primary reference this uninflated zone would be exactly at the passenger's head. Moreover the ability to increase the flow opening to the upper rear chamber thereby rapidly inflating the upper rear chamber during the secondary portion of the impact would be lost. Thus, a diminished degree of head protection would be provided thereby weighing against the proposed modification.

**CONCLUSION**

For the reasons set forth above, Appellant respectfully contends that the application satisfies the requirements of 35 U.S.C. 112 first paragraph and that the cited art relied upon by the Examiner is insufficient to support rejection of the claims.

Respectfully submitted,

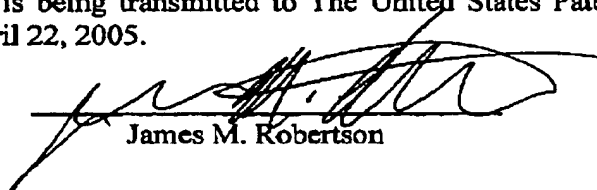


James M. Robertson  
Reg. No. 36,905  
864-583-0030 (phone)  
864-593-0002 (fax)

Date: April 22, 2005

**CERTIFICATE OF FACSIMILE TRANSMISSION**

I hereby certify that this correspondence is being transmitted to The United States Patent and Trademark Office at 703-872-9306 on April 22, 2005.



James M. Robertson